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Amendments to Specification

[17] In accordance with an aspect of the invention, a network management and service provisioning computing environment of a network management and service provisioning system is provided. The object oriented network management and service provisioning computing environment is coded in an object oriented statically typed language and configured to invoke polymorphic operations. A directive parser is configured to process, at run-time, at least one managed data network entity specification file having directives therein. A generic lexical analyzer interprets, at run-time, at least one directive parsed from the managed data network entity specification file. The computing environment makes use of an ~~executable code~~ implementation of a single managed entity object class to derive, at run-time, via type derivation, a derivation hierarchy of managed data network object types based on run-time parsed entity directives. The single management entity object class implementation further includes an ~~executable code~~ implementation of an invoke function configured to cause the execution of at least one operation having a name via a function call to the invoke function using the name of the operation as a parameter to the invoke function. A dictionary of operations holds a roster of operation names of operations registered with the dictionary of operations in accordance with a run-time parsed operation directive in respect of a corresponding managed data network object type. Each registered operation references a method associated with the managed data network object type. The dictionary of operations provides run-time support for polymorphic operation invocation. And, a message interpreter processes messages received from at least one network management and service provisioning software application at run-time by calling the invoke function to cause the execution of a registered operation on an instance of a derived managed data network object type by using the corresponding operation name as a parameter of the invoke function. A separation is achieved between managed data network entity instances and network management and service provisioning software applications. The separation enables independent development, maintenance and troubleshooting in providing network management and service provisioning. The run-time derivation of the single managed entity object class and invoking the operation by name minimizes the need to re-code and re-compile code in supporting new managed entity object types.